

Science Unit

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How do various objects in the solar system interact?

In the solar system in order to function different things have to work together, like the planets, in order to revolve and rotate we all have to work together. Each different planet has a force to revolve and rotate, and that force is connected to all the planets. The one thing that interacts with the solar system is the Sun. on Earth we see the sun and we can't live without it, same thing happens with all the other planets in the solar system. Another object is gravity, gravity helps support the planets while staying in the ecliptic plane. Seasons explain how we use the sun and the earth's axis tilt to change the day and night cycle with including the seasons.

Solar system:the collection of eight planets and their moons in orbit around the sun, together with smaller bodies in the form of asteroids, meteoroids, and comets.

Planets:a celestial body moving in an elliptical orbit around a star.

Interacts:a particular way in which matter, fields.

Sun:the star around which the planets orbit.

Gravity:the natural force that causes things to fall toward earth.

Ecliptic plane:The ecliptic plane is used as the primary reference plane when describing the position of bodies in the solar system.

Seasons

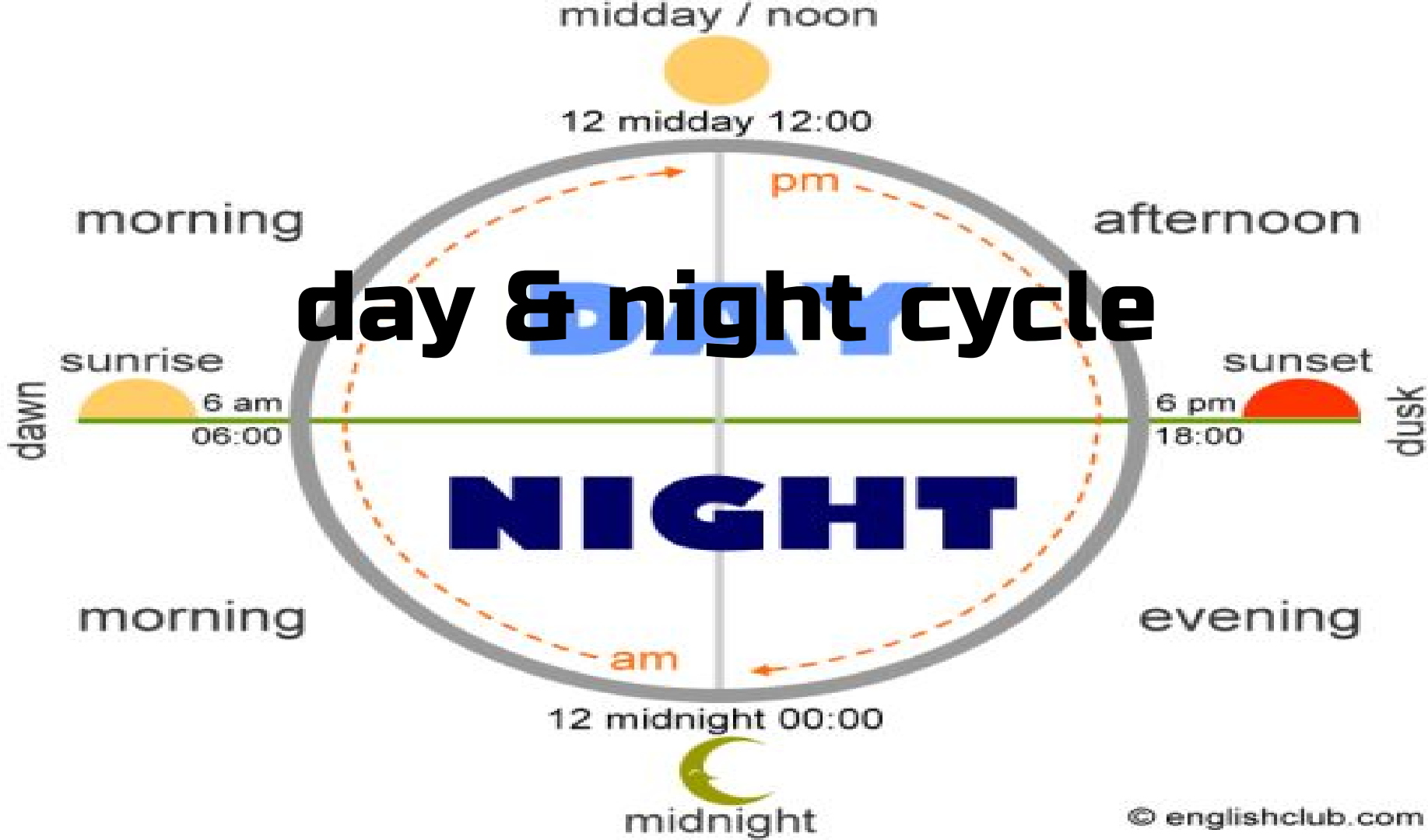


Seasons

Seasons are part of every planet even though it might seem like it's only one season on a different planet but every planet has them only in our solar system. seasons are marked by particular weather patterns and daylight hours, resulting from the earth's changing position with regard to the sun.

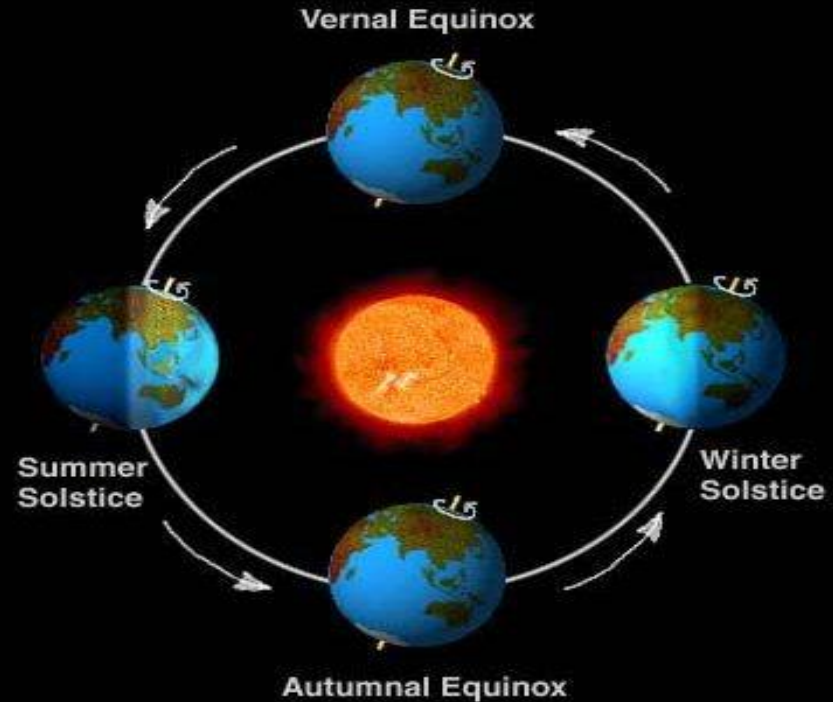


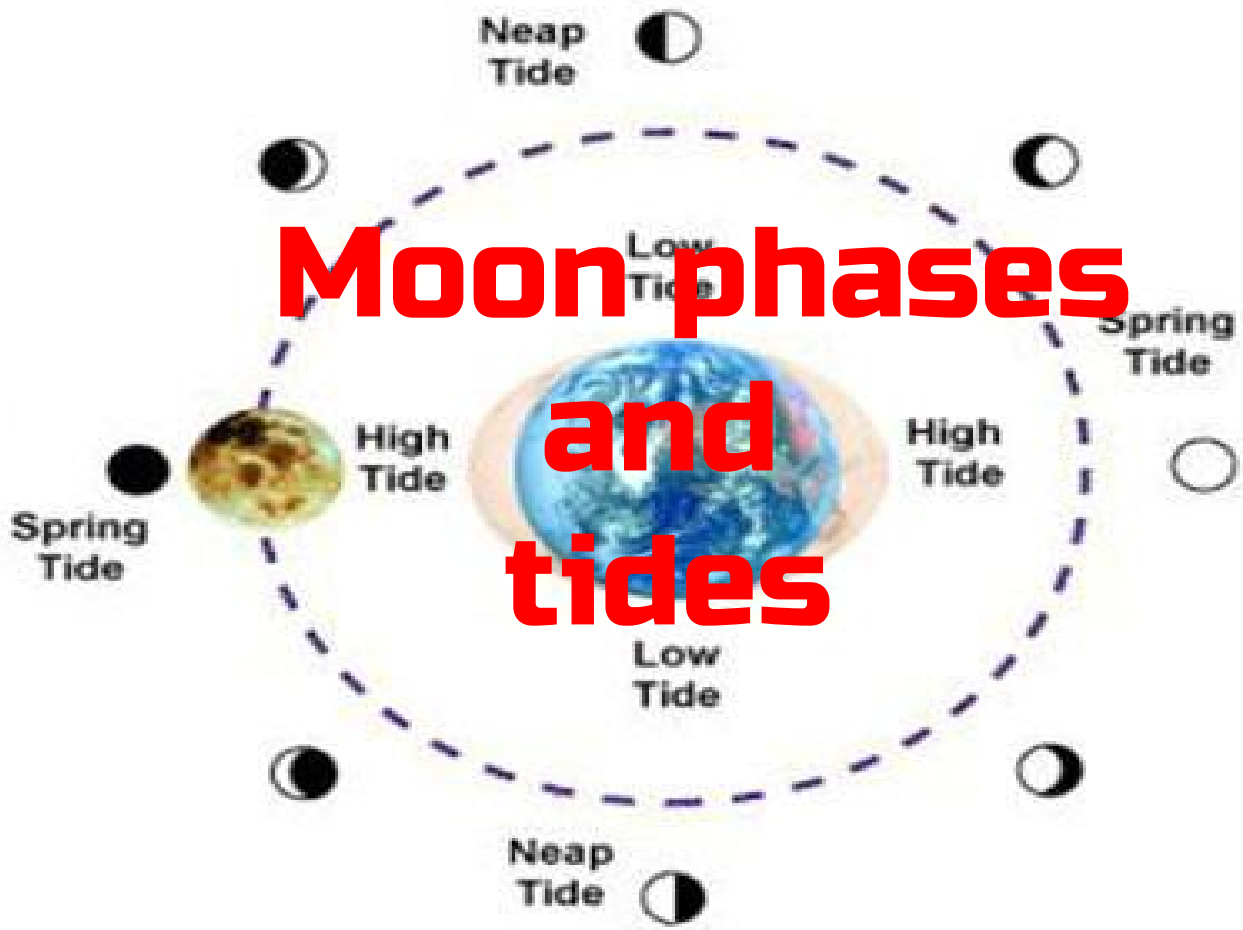
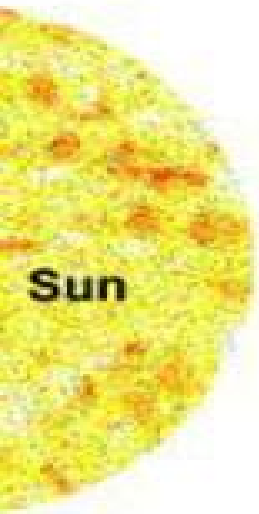
day & night cycle



Earth's Axis Tilt

The Earth's axis is tilted at an angle of 23.5° away from the plane of the ecliptic. And it's because of this tilt that we have seasons here on Earth. During summer in the northern hemisphere, the Earth's axis is tilted so that the north pole of the Earth is tilted towards the Sun. Regions in the northern hemisphere experience more sunlight and so they're warmer than the southern hemisphere. Regions in the northern hemisphere experience more sunlight and so they're warmer than the southern hemisphere. Then in autumn, both the northern and southern hemispheres receive equal sunlight. And in winter for the northern hemisphere, the north pole is tilted away from the Sun, and so it's colder in the north and warmer in the south.





Moon phases and tides

Moon phases and Tides

There are several kinds of tides. The ones that break upon a beach every 10 seconds to a minute are caused by sea level disturbances out in the ocean produced by such things as storms. Also, the various circulation currents of sea water can have velocity components directed towards the land which will bring water up onto the beach. As this water travels towards the beach from deepwater to shallow water, its amplitude will increase until it finally 'breaks' as a full-fledged breaker, suitable for surfing etc.

